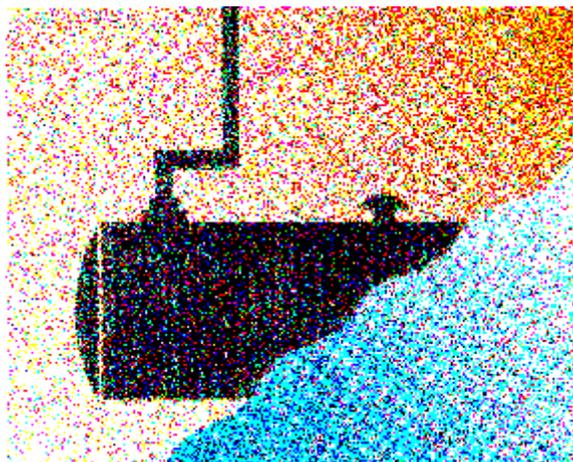


**CLOSURE OR CHANGE-IN-SERVICE  
OF A  
HAZARDOUS SUBSTANCE  
UNDERGROUND STORAGE TANK**

**GUIDANCE**

**December 1997**



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**UNITED STATES ENVIRONMENTAL PROTECTION AGENCY  
REGION 4  
UNDERGROUND STORAGE TANK PROGRAM  
61 FORSYTH STREET  
ATLANTA, GEORGIA 30303-3104**

GUIDANCE FOR  
CLOSURE OR CHANGE-IN-SERVICE  
OF A  
HAZARDOUS SUBSTANCE UNDERGROUND STORAGE TANK

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Underground Storage Tanks
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**GUIDANCE FOR  
CLOSURE OR CHANGE-IN-SERVICE  
OF A  
HAZARDOUS SUBSTANCE UNDERGROUND STORAGE TANK**

**1.0 INTRODUCTION/PURPOSE**

An owner of a Hazardous Substance Underground Storage Tank (UST) preparing to permanently close or conducting a change-in-service of the UST system in the State of Tennessee should seek guidance for appropriate closure or change-in-service procedures by referring to the Code of Federal Regulations, 40 C.F.R. §280.71 - 280.74. The regulations and additional Environmental Protection Agency (EPA) guidance on UST closure or change-in-service may be obtained by calling the Agency's toll-free RCRA/Superfund Hotline at (800) 424-9346.

In addition, detailed UST closure or change-in-service procedures guidance for petroleum USTs is available through the Division of Underground Storage Tanks of the Tennessee Department of Environment and Conservation, Fourth Floor, L&C Tower, 401 Church Street, Nashville, TN 37243-1541. There are some differences in closure or change-in-service procedures for petroleum and hazardous substance USTs. Therefore, the purpose of this document is to provide a comprehensive guidance for proper *permanent closure* or a *change-in-service* of a hazardous substance UST. This document also describes the activities necessary to *temporarily close* a hazardous substance UST.

**2.0 STATUTES REGULATING HAZARDOUS SUBSTANCES**

The Environmental Protection Agency (EPA) regulates underground storage tanks containing petroleum or hazardous substances by authority of Subtitle I of the Resource Conservation and Recovery Act (RCRA). Subtitle I was added to RCRA by the Hazardous and Solid Waste Amendments of 1984. Although Subtitle I establishes regulation of substances defined as "hazardous" under the Comprehensive Environmental Response, Compensation, and Liability Act of 1980 (CERCLA), this does not include hazardous wastes as defined by Subtitle C of RCRA. However, RCRA Subtitle C regulations may apply to certain activities associated with closing a hazardous substance UST. The owner may therefore want to refer to the appropriate RCRA Subtitle C regulations before proceeding with a hazardous substance underground storage tank closure.

**3.0 NOTIFICATION**

**3.1 Local Notification:** Before beginning work to *permanently close* the UST, the owner may want to verify if notification to the local fire department or state fire marshal's office is required. In addition, the owner should notify the State of Tennessee Hazardous Waste Program before beginning closure activities.

**3.2 Implementing Agency Notification:** When a hazardous substance UST system

is removed or permanently closed, *notification* of the owner's intent to permanently close or remove the hazardous substance UST system shall be submitted *thirty days (30) days before initiating any closure activities* to the UST Program of the Environmental Protection Agency (EPA) Region IV Office in Atlanta, Georgia. All correspondence related to the closure of the hazardous substance UST system must include the facility's state agency I.D. number.

3.2.1 Requested Notification Information: A notification form for closure or change-in-service of a hazardous substance underground storage tank system is included as **Appendix A**. This form should be used by the owner submitting notification of hazardous substance UST system closure or a change-in-service to EPA.

**NOTE:** **Appendix A** indicates that soil and/or groundwater sampling and analyses shall be conducted for site assessment. The type of hazardous substance (product) currently or previously stored will determine the appropriate contaminant analysis of soil and/or ground water. If the type of product stored is unknown, it will be necessary to analyze for a suite of *suspected* contaminants.

#### 4.0 SITE ASSESSMENT

Before permanent closure or a change-in-service of an UST system is complete, a site assessment enables the owner to determine whether or not a release has occurred at the UST site. In selecting sample types, sample locations, and measurement methods; the method of closure, the nature of the stored substance, the type of backfill, the depth to ground water, and other factors appropriate for identifying the presence of a release should be considered. After the site assessment is complete, the owner may proceed with the UST closure or change-in-service. If the site assessment indicates that a release has occurred, the owner must begin corrective action in accordance with 40 C.F.R. Subpart F.

General guidance for conducting a site assessment is included as **Appendix B** of this document. As part of the site assessment, the UST owner shall prepare a **Closure Assessment Report**. **Appendix C** suggests the type of information typically included in a **Closure Assessment Report**.

#### 5.0 PERMANENT CLOSURE OR CHANGE-IN-SERVICE

Once the owner has completed the notification requirements for closing or change-in-service of a hazardous substance UST, procedures for closure or change-in-service of the hazardous substance UST system may begin. At least 14 days prior to collecting environmental samples, EPA personnel should be notified. Prior to handling or removing the hazardous substance contained in the UST, the owner shall contact the Hazardous Waste Management Division of the Tennessee Department of Environment and Conservation in Nashville, Tennessee by calling 615-532-0780. The Department will identify appropriate

federal and state regulations governing the handling and removal of any hazardous waste contained in the UST system.

5.1 Closure-in-Place/Change-in-Service: Closure-in-Place of a hazardous substance UST system is not recommended. Should site conditions prohibit closure-by-removal, or where a change-in-service is being undertaken, the owner should contact EPA for guidance on how to conduct the required site assessment. The site assessment guidance described in **Appendix B** is only to be used when the USTs are removed from the ground. USTs closed by leaving the USTs in the ground require a more comprehensive assessment to demonstrate that a release has not occurred.

5.2 Closure-by-Removal: Site assessment should be conducted considering the procedures outlined in **Appendix B**.

The following guidance should help the in the closure-by-removal of a hazardous substance UST system:

- ! Remove liquids and residues from the UST by using explosion-proof (when appropriate) or air-driven pumps; use a hand pump (if necessary) to remove the last few inches of liquid from the bottom of the UST;
- ! Remove all product from piping, avoiding any spillage;
- ! Remove all sludge from the bottom of the UST;

**NOTE:** Removal of hazardous substance(s) from the UST system should be conducted with extreme caution. Adherence to applicable regulations governing the handling and disposal of hazardous substance(s) will ensure the health and safety of field personnel during the removal process. The following guidance will ensure proper closure-by-removal of a hazardous substance UST system:

- ! Remove the fill (drop) tube; Disconnect all associated piping; Cap or plug all piping not used during purging procedures.
- ! Purge the tank atmosphere.
- ! Clean and decontaminate the tank, piping, and ancillary equipment. The American Petroleum Institute (API) Recommended Practices 1604, 1631, and 2015 may be used as guidance for acceptable methods to properly clean and decontaminate the UST(s). Refer to the appropriate National Institute for Occupational Safety and Health (OSHA) guidance for working in a confined space.
- ! After the tank has been freed of hazardous substance(s) and before it is removed from the excavation, plug or cap all accessible holes. One plug must have a 1/8-inch vent hole to prevent the tank from being subjected to excessive differential pressure caused by temperature changes. The tank must always be positioned with the vent plug on top of the tank during subsequent transport and storage.

- ! Excavate around the tank to uncover it for removal; remove the tank from the excavation and place it on a level surface; use wood blocks to prevent movement of the tank after removal and prior to loading on a truck for transportation; Use of screwed (boiler) plugs is recommended to plug any corrosion holes in tank shell.
  
- ! The UST must be secured on a truck for transportation to the storage or disposal site with the 1/8-inch vent hole located at the uppermost point on the tank. Tanks must be transported in accordance with all applicable local, state, and federal laws and regulations.
  
- ! Tanks should be labeled after removal from the ground but prior to removal from the site. Regardless of the condition of the UST, the label should contain a warning against certain types of reuse. The former (removed) contents of the tank shall also be indicated. The

description of the former content should be legible and at least two (2) inches high:

**TANK HAS CONTAINED** (specific name of Hazardous Substance)

**NOT (or IS) VAPOR FREE**

**NOT SUITABLE FOR STORAGE OF FOOD OR LIQUIDS  
INTENDED FOR HUMAN OR ANIMAL CONSUMPTION**

**DATE OF REMOVAL:** Month/Day/Year

**!** Tanks whose service history is unknown shall be clearly labeled with the following information:

**TANK'S SERVICE HISTORY IS UNKNOWN  
VAPORS MAY BE RELEASED IF HEAT  
IS APPLIED TO THE TANK SHELL**

#### ***When Tanks are Stored***

5.2.1 Storage of Used tanks: The following guidance will ensure the appropriate storage of a used hazardous substance tank:

**!** Tanks should be free of all hazardous substance liquids and residues. All tank openings should be tightly plugged or capped, with one plug having a 1/8-inch vent hole to prevent the tank from being subjected to excessive differential pressure caused by temperature changes. Tanks should be stored with the vented plug at the highest point on the UST tank. All tanks should be appropriately labeled.

**!** Used tanks should be stored in secure areas where the general public will not have access.

#### **6.0 TEMPORARY CLOSURE**

When an hazardous substance UST system is temporarily closed, owners shall continue operation and maintenance of corrosion protection in accordance with the Code of Federal Regulations, 40 C.F.R. §280.31, and any release detection in accordance with Subpart D of 40 C.F.R. Subparts E and F shall be complied with if a release is suspected or confirmed. However, release detections are not required as long as the UST system is empty. The UST system is empty when all materials have been removed so that no more than 1" or 0.3% by weight of the total capacity of the UST system, remain in the tank.

When an UST system is temporarily closed for 3 months or more, should prepare the UST system in the following manner:

**!** Leave vent lines open and functioning;

! Cap and secure all other lines, pumps, manways, and ancillary equipment.

When an UST system is temporarily closed for more than 12 months, owners must permanently close the UST system if it does not meet either performance standards in the Code of Federal Regulations, 40 C.F.R. §280.20 for new UST systems or the upgrading requirements in §280.21 *except that* the spill and overfill equipment requirements do not have to be met. Owners must permanently close the substandard UST system at the end of this 12-month period, unless the EPA provides an extension of the 12-month temporary closure period. Owners must complete a site assessment in accordance with the Code of Federal Regulations, 40 C.F.R. §280.72 before such an extension can be applied for.

# APPENDIX A

# NOTIFICATION FORM Closure or Change-in-Service Hazardous Substance UST

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY, REGION 4  
UNDERGROUND STORAGE TANK SECTION  
61 FORSYTH STREET  
ATLANTA, GEORGIA 30303-3104

Submit the following information at least 30 days in advance of the planned activities. All items should be addressed.

1. Tennessee UST Facility ID Number: \_\_\_\_\_

2. Name of Facility: \_\_\_\_\_

Address: \_\_\_\_\_

\_\_\_\_\_

Phone Number: \_\_\_\_\_ County: \_\_\_\_\_

3. Name of UST System owner: \_\_\_\_\_

Address: \_\_\_\_\_

\_\_\_\_\_

Phone Number: \_\_\_\_\_

4. Identify each UST by ID, such as #1, #2, etc., and its corresponding capacity in gallons. For each UST, list the name(s) of all hazardous substances that have been stored over its operational history. For each hazardous substance listed, identify it by proper chemical name and corresponding Chemical Abstract Service (CAS) registry number.

UST ID	Size (gal)	Hazardous Substance & CAS Number	Used
_____	_____	_____	_____
_____	_____	_____	_____
_____	_____	_____	_____
_____	_____	_____	_____
_____	_____	_____	_____
_____	_____	_____	_____

\* For example: "Solvent" is inadequate, "Acetone, CAS # 67-64-1" is specific.  
"Antifreeze" is inadequate, "Ethylene glycol, CAS #107-21-1"

is specific.

5. Attach a copy of the Material Safety Data Sheet(s) (MSDS) for each hazardous substance listed in the above table.

6. Type of Action:  
Removal \_\_\_\_\_ Closure-in-Place \_\_\_\_\_ Change-in-Service \_\_\_\_\_

*Note: Closure-in-place is not recommended. If UST system is to be taken out of service by closure-in-place or by change-in-service, contact EPA for additional guidance on how to precede.*

7. A site sketch shall be attached showing the location of the underground storage tanks, associated lines, sampling points, and any nearby underground utilities.
8. All environmental sampling and analyses should follow appropriate quality assurance, quality control, and chain-of-custody procedures. Identify the analytical method(s) that will be used to analyze samples from the soil, ground water, and UST contents.
9. List the name and address of the certified or EPA approved laboratory where the samples will be sent.
10. Describe how any contaminated media that is encountered will be handled, stockpiled, and treated. NOTE: Any material removed from the excavation pit shall be considered contaminated until proven otherwise through laboratory analyses.
11. List the name and address of the company/person performing the closure and the date scheduled.



The person signing this notification shall be the owner of the UST system or an owner's authorized representative. Please be advised that the person signing this form, either the owner of the UST system or the owner's authorized representative, is responsible for resolving any environmental problems caused by the underground storage tank system at this site.

I, (please print) \_\_\_\_\_ agree to submit the Closure Assessment Report, including the results of the samples collected and analyzed in regard to this closure, within 30 days of receipt of results from the laboratory performing the analysis and will resolve all environmental problems associated with any release caused by, or in association with, the underground storage tank system at this site.

\_\_\_\_\_  
Signature

\_\_\_\_\_  
Date

\_\_\_\_\_  
Title

# **APPENDIX B**

## Appendix B

### GUIDANCE FOR UST REMOVAL

**1.0 Streamlining Site Assessment** - The protection of human health and the environment should always be a streamlined and cost-effective approach to site assessment and any subsequent corrective action will be taken.

The site assessment information should reflect site conditions. The sampling program used should be conducted differently, since USTs that are removed from the ground enable the bottom of the excavation to be inspected. Inspections of these areas may determine locations that make an initial determination concerning the presence of contamination.

The exterior of a hazardous substance UST undergoing a closure-in-place or change-in-service cannot be inspected. A comprehensive assessment is required. **Closure-in-place of a hazardous substance UST system is not recommended. If a closure-in-place is conducted, the owner should contact EPA for further guidance on how to conduct sampling. The sampling program for USTs closed by leaving the USTs in the ground or undergoing a change-in-service require a more comprehensive assessment.**

**2.0 Quality Assurance & Quality Control** - Throughout all sample collections and analysis activities, the following procedures should be used.

! Field and sampling procedures should be conducted in accordance with EPA Region 4's Environmental Assessment Manual, which is available for downloading from the Internet at: <http://www.epa.gov/region4/sesd/eib/eisopqam>. The manual is available from the Environmental Assessment Division, 980 College Station Road, Athens, GA 30605-2720, or faxing a request to 706-355-8744.

! Laboratories should follow analytical procedures according to the latest version of EPA methods. Other analytical protocols should be submitted to EPA for review at least thirty (30) days before use.

! Laboratories used for analyses should participate in a quality assurance/quality control program. If a laboratory is not approved by EPA, such laboratories shall perform analysis of a reasonable number of known samples provided by EPA.

**3.0 Field Operations** - An initial hazardous substance UST survey should be conducted to accomplish the following objectives:

! Determine any hazards that may exist which could adversely affect site personnel.

! Verify existing information or obtain new information about the immediate UST pit area.

To accomplish the first objective listed above, an assessment of the real or potential dangers from atmospheric monitoring equipment.

Once the initial site survey has indicated that there is no danger to field personnel through fire, explosion, or other hazards, it is necessary to complete the site assessment.

**4.0 Sampling UST System Contents** - Prior to emptying the contents of the UST system for either petroleum or hazardous waste, a sample from the bottom for analysis. At a minimum, the sample shall be analyzed for each constituent that has been identified in the possible constituents stored in the UST system.

**5.0 Analyses of Soil and Ground Water Samples** - Soil and ground water samples should be analyzed for each constituent including any constituent found by the broad scan. Soil and ground water samples should be collected and analyzed for each constituent.

**6.0 Sample Locations**

6.1 Soil - Areas selected for soil sampling should be strategically located in order to collect a representative sample.

be taken from under the immediate periphery of the UST, as well as soil directly under product piping of samples to be collected. Please refer to the following Table 1 for the recommended number and location

**TABLE 1**

<b>UST STORAGE CAPACITY (GAL)</b>	<b>MIN. # OF SAMPLES TO SUBMIT TO LAB</b>	<b>LOCATION</b>
950 OR LESS	2	SEE FIGURE 1
951 TO 7,500	5	SEE FIGURE 1
7,501 TO 25,000	8	SEE FIGURE 1
25,001 TO 30,000	10	SEE FIGURE 1
GREATER THAN 30,000 APPROVED ON A SITE-SPECIFIC BASIS		
<b>ALL UST SYSTEMS</b>	<b>SITE-SPECIFIC</b>	<b>SOIL DIRECTLY BELOW PRODUCT PIPING* &amp; DISPENSER ISLANDS</b>

\*Soil samples should be taken under associated piping at least once every fifteen (15) feet. For pits at least 50% of these samples should represent samples taken at piping joints. Site specific conditions apply. The owner should provide information or data supporting the alternative sampling plan.

The following guidance will enable the owner to conduct appropriate sampling for closure of a hazardous waste site.

- ! Samples should be obtained from the pit floor at a depth of one foot into undisturbed native pad (refer to Figure 1, **Appendix B** for locations).
- ! A standard industry sampling device should be used to collect a fresh, unvolatilized (where appropriate) sample. Appropriate chain-of-custody procedures should be followed for delivery to a certified laboratory.
- ! Water encountered in excavations should be removed and properly disposed. If the water recharges within 24 hours, a sample should be collected and submitted to a certified or EPA approved laboratory. Water samples should include site-specific (product) constituents.

6.2 Sampling Excavated Soils - Excavated soil samples should be collected after all backfill material has been removed. Refer to the Tennessee Department of Environment and Conservation for appropriate regulations (manifest, proper closure, etc.).

6.3 Product Piping and Dispenser Islands - In addition to the tanks, the product piping and dispenser islands are potential sources of releases from product piping and dispenser islands. Regardless of the method of closure, all joints, connectors, and dispenser islands. Soil samples should be taken under associated piping at all piping joints. For suction piping systems at least 50% of these samples should represent samples taken under associated piping. The owner should provide information or data supporting any alteration of the above recommended sampling numbers.

**Encountering Bedrock**

- ! If the UST system is installed in bedrock, samples of material up to the size of pea gravel should be obtained from the pit floor. If all the backfill material has been excavated and no material can be sampled, the owner should provide information or data supporting the alternative sampling plan.

installed in the area of suspected contamination. If no obvious area of contamination is evident at the junction of the piping trench. Site specific conditions may require the installation of a pipe. Refer to the Assessment Guidelines in the Tennessee Department of Environmental & Conservation's *UST Reference*

- ! If soil contamination is in contact with bedrock, the installation and sampling of a ground-water monitoring wells are to be constructed and installed in accordance with the Environmental Assessment Handbook. A monitoring well construction diagram, detailed boring log, analytical results and (Appendix C). The site map should indicate the location of the monitoring well in relation to the tank.
- ! Water encountered should be removed and properly disposed. If the water recharges within 24 hours, a water sample analysis should include site-specific (product) constituents.

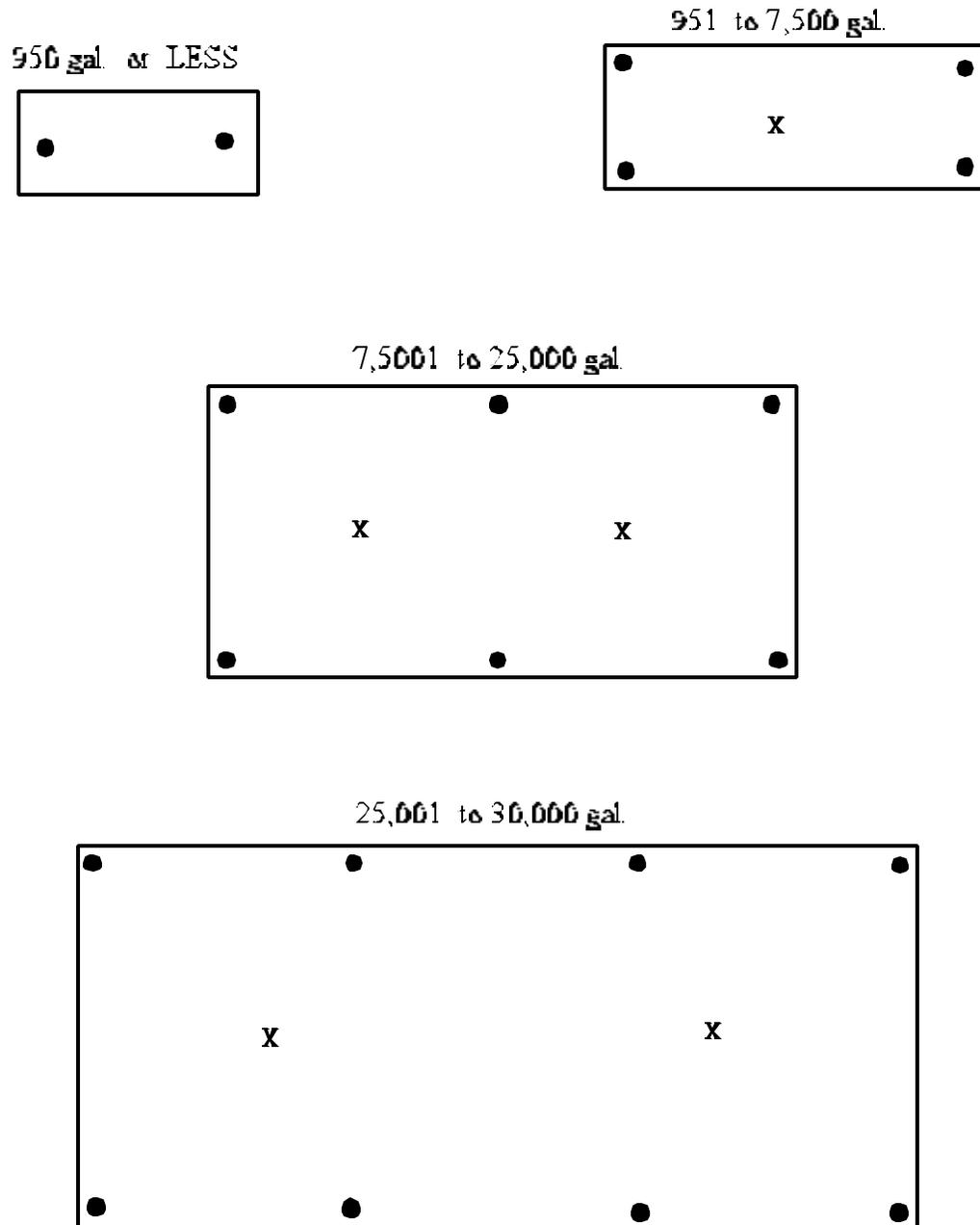
6.4 Ground Water - A ground water sample should be obtained if external leak detection, as found in the Handbook. If a full site investigation will be necessary, a ground water sample is not required to be obtained from an area hydrologically down-gradient of the UST location. These samples should be obtained from the tank.

7.0 General Requirements During UST System Closures by Removal - The following procedures should be followed:

- ! Immediately after collection, all samples shall be placed on ice and maintained at 4°C until analyzed.
- ! The original or a carbon copy of all analytical results shall be submitted to the EPA UST program. A depth from ground surface should be provided to the laboratory and printed on each laboratory report.
- ! All excavated material remaining on the site shall be placed on and covered with plastic until removed for treatment of a hazardous substance. The Hazardous Waste Management Division of the Tennessee Department of Environmental & Conservation shall be notified if the contaminated material is to be transported for containment or treatment at a treatment, storage, and disposal unit.
- ! Upon discovery of a hazardous substance release, the owner shall notify EPA within 24 hours and the appropriate regulatory agency.
- ! Closure records shall be maintained for at least 3 years in accordance with 40 C.F.R. §280.74

# FIGURE 1

## SAMPLE LOCATIONS FOR UST REMOVAL



- Sampling points are located in the footprint of the former tank.
- X Sampling points under fill pump ports.

# APPENDIX C

**APPENDIX C  
CLOSURE ASSESSMENT REPORT  
(example)**

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The UST system owner shall complete and submit the **original** of this report within 45 days of collect following appendices in the report.

**Appendix A** Include a table containing the field screening and analytical results. All results shall be with the sampling locations on the site map.

**Appendix B** Include the original or carbon copy of the laboratory analysis sheets (if laboratory analysis sample location and sample depth from ground surface and any other chain-of-custody documenta

**Appendix C** Include an updated (scaled) site map showing buildings, utilities, borings, and sample points screening and sampling points. If you choose to document your UST closure with photographs, p

**Appendix D** Include documentation for treatment and/or disposal of soil, sludge, liquid, tanks and piping manifest, etc.)

\*\*\*\*\*

**Identification**

1. Tennessee UST Facility ID# \_\_\_\_\_
2. Facility Name and Address \_\_\_\_\_  
Please include any former facility names in parenthesis. If mailing add
3. Closure Started (month/day/year) \_\_\_\_\_
4. Closure Completed (month/day/year) \_\_\_\_\_
5. Number of USTs Closed \_\_\_\_\_

6. Consultant (Name, address, phone #, contact person) \_\_\_\_\_  
 \_\_\_\_\_
7. UST Removal Contractor (Name, address, phone #, contact person) \_\_\_\_\_  
 \_\_\_\_\_
8. EPA Personnel with the UST Program were notified at least 14 days before collecting soil sample  
 Yes\_\_\_ NO\_\_\_
- Person contacted \_\_\_\_\_  
 Date \_\_\_\_\_  
 Reported by \_\_\_\_\_

**Product Removal**

9. All liquid/sludge, including water, removed from the UST system  
 Tank(s): Yes\_\_\_ No\_\_\_ None encountered\_\_\_  
 Piping: Yes\_\_\_ No\_\_\_ None encountered\_\_\_
10. Method of liquid/sludge storage: \_\_\_\_\_
11. Method of liquid/sludge disposal: \_\_\_\_\_

Note: Attach any manifest documentation (**Appendix D**)

**Purging**

12. The tank atmosphere and work zone were regularly tested with a combustible gas indicator (when required)  
 Yes\_\_\_ No\_\_\_
13. Method of purging tank atmosphere: \_\_\_\_\_

**Piping**

14. Complete a table providing the following requested piping information for each hazardous substance
- ! Piping construction material (abbreviate)  
 S = Steel, F = Fiberglass, X = Flexible Plastic, Other \_\_\_\_\_
- ! Length of piping from UST to each dispenser (feet)
- ! Type of system (abbreviate) P = Pressurized, S = Suction

! Was piping removed from the ground during closure?

! Visible holes, corrosion or pitting in piping?

15. Piping was: Removed\_\_\_ Closed-In-Place\_\_\_

**UST Closure**

16. Complete a table providing the following requested information for each hazardous substance t

! Type of hazardous substance currently or previously stored in the UST

! Capacity (gallons)

! Age (installation date, estimate if not sure)

! Construction material (abbreviate)

S = Steel, SC = Fiberglass Coated Steel, F = Fiberglass,  
Other = \_\_\_\_\_

! Month/Year of last use

! Depth (in feet) to base of tank

! Spill prevention equipment, Overfill prevention equipment

! Method of closure:

Removal, Closure-in-Place, or Change-in-Service

! Visible holes, corrosion, pitting in the tank?

17. Tank was labeled in accordance with federal and state regulations.  
Yes\_\_\_ No\_\_\_ Not applicable\_\_\_

18. Method of tank and piping storage/disposal:

Cut up for disposal\_\_\_ Stored on site\_\_\_ Stored offsite\_\_\_  
Other\_\_\_\_\_

Note: Attach copies of any disposal manifests (**Appendix D**).

19. Location of removed tank and piping storage/disposal: \_\_\_\_\_

**Excavation/Sampling/Hazardous Substance Treatment, Disposal**

20. Bedrock or concrete pad encountered during UST system removal/closure-in-place.  
Yes\_\_\_ No\_\_\_

All contaminated material was excavated.

Yes\_\_\_ No\_\_\_ Not applicable\_\_\_

Undisturbed native soil was sampled from floor of excavation.

Yes\_\_\_ No\_\_\_

Note: If concrete pad encountered during UST system removal, soil sample is to be taken below

21. Water was encountered during excavation of UST system.

Yes\_\_\_ No\_\_\_

If excavation soil sampling analyses indicated contamination, was water analyzed for contaminants?

Yes\_\_\_ No\_\_\_

If yes, include results of analyses as part of **Appendix A**.

Amount of water removed: \_\_\_\_\_ gals.

Water recharged within 24 hours.

Yes\_\_\_ No\_\_\_

Recharge water was sampled.

Yes\_\_\_ No\_\_\_

Included analytical results into **Appendix A**.

Method of water disposal: \_\_\_\_\_

Note: Attach any manifest documentation (**Appendix D**)

22. Water was encountered in the soil borings during closure-in-place.

Yes\_\_\_ No\_\_\_ Not applicable\_\_\_

Water was sampled.

Yes\_\_\_ No\_\_\_

Please include water analytical results into **Appendix A**.

23. Amount of back fill material initially removed during UST system closure: \_\_\_\_\_ cubic yards (c)

24. Total amount of contaminated material over excavated after removal of the UST system: \_\_\_\_\_

Hazardous Waste Management Division of the Tennessee Department of Environment and Conservation

Yes\_\_\_ No\_\_\_ Not applicable\_\_\_

Person contacted \_\_\_\_\_

Date reported \_\_\_\_\_

All excavated material remaining on the site of generation or on a site owned by the generator shall be managed in accordance with federal and state regulations governing the handling of a hazardous waste. All excavations shall be backfilled with material of similar composition to the excavated material.

If the contaminated material is to be treated offsite, contact the Hazardous Waste Management Division (615-532-0780).

25. Mark all that apply regarding the management of the excavated material:

Stockpiled onsite\_\_\_ Treatment onsite\_\_\_

Treatment offsite\_\_\_ Landfilled\_\_\_

Other: \_\_\_\_\_

Documentation is included in **Appendix D**.

Yes\_\_\_ No\_\_\_

26. All sample containers were supplied by a certified or EPA approved laboratory.  
Yes\_\_\_ No\_\_\_
27. Date/Time/Name of person collecting sample: \_\_\_\_\_/\_\_\_\_\_/\_\_\_\_\_  
\_\_\_\_\_.
28. All samples were placed in the appropriate containers.  
Yes\_\_\_ No\_\_\_
29. Immediately after collection all samples were placed on ice and maintained at 4° C until deli  
Yes\_\_\_ No\_\_\_
30. Laboratory confirmation of hazardous substance contamination was reported to the EPA UST prog  
Yes\_\_\_ No\_\_\_ Not Applicable\_\_\_

Person contacted \_\_\_\_\_  
Date \_\_\_\_\_  
Reported by \_\_\_\_\_

**Receptors**

31. Are there any lakes, ponds, streams, or wetlands located within 1000 feet of the UST system?  
Yes\_\_\_ No\_\_\_  
  
If yes, indicate type of receptor, distance, and direction on site map.
32. Are there any public, private, or irrigation water supply wells within 1000 feet of the hazar  
Yes\_\_\_ No\_\_\_  
  
If yes, indicate type of well, distance, and direction on site map.
33. Are there any underground structures (e.g., basements)  
located within 100 feet of the hazardous substance UST system(s)?  
Yes\_\_\_ No\_\_\_  
  
If yes, indicate the type of structure, distance, and direction on site map.

34. Are there any underground utilities (e.g., telephone, electricity, gas, water, sewer, storm c  
Yes\_\_\_ No\_\_\_

If yes, indicate the type of utility, distance, and direction on the site map.

35. Has contaminated soil been identified at a depth less than 3 feet below land surface?  
Yes\_\_\_ No\_\_\_

If yes, indicate the type of utility, distance, and direction on the site map.

**Notification**

36. A Notification Form reporting the closure of the hazardous substance UST system was submitted  
Yes\_\_\_ No\_\_\_

**Certification**

**The following certification statement should be included in a Closure Assessment Report.**

I certify under penalty of law, including but not limited to penalties for perjury, that the informa  
knowledge, information and belief. I am aware that there are significant penalties for submitting i

Name and Official Title of Owner  
or Owner's Authorized Representative

\_\_\_\_\_  
Name (print)

\_\_\_\_\_  
Official Title

\_\_\_\_\_  
Signature

\_\_\_\_\_  
Date